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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/581,311

06/02/2006

Marco Bosch

13156-00051-US1

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07/15/2009

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EXAMINER

WOOD, ELIZABETH D

ART UNIT

PAPER NUMBER

1793

MAIL DATE

DELIVERY MODE

07/15/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |                                     |  |
|------------------------------|--------------------------------------|-------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/581,311 | <b>Applicant(s)</b><br>BOSCH ET AL. |  |
|                              | <b>Examiner</b><br>Elizabeth D. Wood | <b>Art Unit</b><br>1793             |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 April 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 18 is/are pending in the application.
- 4a) Of the above claim(s) 7-17 and 19-33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>See Continuation Sheet</u> .                                  | 6) <input type="checkbox"/> Other: _____                          |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :7/10/06, 6/26/08, 9/26/08, 10/7/08.

### ***Specification***

The examiner has not checked the specification to the extent necessary to determine the presence of **all** possible minor errors (grammatical, typographical and idiomatic). Cooperation of the applicant(s) is requested in correcting any errors of which applicant(s) may become aware of in the specification, in the claims and in any future amendment(s) that applicant(s) may file.

Applicant(s) is also requested to complete the status of any copending applications referred to in the specification by their Attorney Docket Number or Application Serial Number, **if any**.

The status of the parent application(s) and/or any other application(s) cross-referenced to this application, if **any**, should be updated in a timely manner.

### ***Information Disclosure Statement***

The information disclosure statements filed have been considered as set forth in MPEP 609. Once the minimum requirements of 37 C.F.R. 1.97 and 1.98 are met, the examiner has the obligation to consider the information. Consideration by the examiner of the information submitted in an IDS means nothing more than considering the documents in the same manner that other documents in Office search files are considered by the examiner while conducting a search of the prior art in a proper field of search. The initials of the examiner placed adjacent to the citations on the PTO-1449 or PTO/SB/08A and 08B, or its equivalent, mean that the examiner to the extent noted above has considered the information. See MPEP 609.05(b) Rev. 5.

Applicant should note that documents not in the English language have been considered only to the extent of statements of relevance, explanations provided in the corresponding search reports provided and provided translations.

***Election/Restriction***

Applicant's election of Group I, claims 1-6 and 18, in the reply filed on April 3, 2009 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Applicant further requests rejoinder of Group III, claims 12-17, upon allowance of claims 1-6 and 18. Applicant is advised that the group III claims will be rejoined ONLY if they directly depend from or otherwise include all limitations of the allowed claims, if there are no defects under the first or second paragraphs of 35 USC 112, and if it is a timely point in the prosecution, i.e. prior to final rejection.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

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2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-6 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over The Van Grieken et al. article or WO 97/03019 in view of EP 0,952,152.

The instant invention is directed to a pentasil catalyst composition with an alkali and alkaline earth metal content that does not exceed 150 ppm, a molar ratio of silica to alumina from 250 to 1500. The particles are indicated to be primarily spherical (at least 90%), and at least 95% of the particles have diameters less than or equal to 1 micron.

The Van Grieken et al. article and WO 97/03019 disclose compositions comprising pentasil materials made in low basicity environments in the absence of alkali or alkaline earth materials, and nanocrystalline materials are obtained. These references differ in the instantly claimed ratio of silica to alumina, which is lower than that set forth in the instant claims.

EP 5,952,152 discloses an analogous pentasil material with a ratio of silica to alumina in the range of 1:1 or more, preferably in the range of 20:1 to 1000:1. It is considered that varying the ratio of Van Grieken et al. or WO 97/03019 as taught by EP 0,952,152 would have been obvious because all of the references are concerned with the same final reaction, i.e. the preparation of triethylenediamine and piperazine, so there would be a reasonable expectation of success. Moreover, it is known in the art and fairly shown by the myriad art present on this file record that higher aluminum contents are associated with smaller particle sizes, which would be desirable to the artisan concerned with making triethylenediamine and piperazine. High aluminum contents are also connected with increased thermal stability, which is always desirable when conduction reactions at high temperatures. Accordingly, the examiner would maintain that it would have been obvious to increase the ratio of silicon to aluminum in a pentasil catalyst to arrive at the instantly claimed invention with a reasonably clear expectation of success. See particularly page 3 of EP 9,952,152, the experimental sections of Van Grieken et al. and the examples of WO 97/03019.

### ***Conclusion***

Applicants are advised that any evidence to be provided under 37 CFR 1.131 or 1.132 and any amendments to the claims and specification should be submitted prior to final rejection to be considered timely. It is anticipated that the next office action will be a final rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth D. Wood whose telephone number is 571-272-1377. The examiner can normally be reached on M-F, 5:30-2:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Elizabeth D. Wood/  
Primary Examiner, Art Unit 1793

/E. D. W./  
Primary Examiner, Art Unit 1793